

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

**CONSUMER PROTECTION AND SAFETY DIVISION
SAFETY AND RELIABILITY BRANCH**

**RESOLUTION SU-52
DATE: APRIL 3, 2003**

RESOLUTION

**RESOLUTION SU-52, ORDER GRANTING SANTA CLARA
VALLEY TRANSPORTATION AUTHORITY A VARIANCE
FROM GENERAL ORDER 95, RULE 37, TABLE 1, CASE 3-C,
AT STATE ROUTE 87.**

SUMMARY

1. By letter of January 9, 2003, the Santa Clara Valley Transportation Authority (VTA) petitions the Commission to authorize a variance from General Order 95 (G.O. 95), Rule 37, Table 1, Case 3-C, at a location above surface streets immediately to the east of State Route 87 (SR87) overpass at West San Carlos Street and Woz Way in San Jose.
2. Whereas G.O. 95, Rule 37, Table 1, Case 3-C requires a clearance of 19 feet between overhead trolley conductors and road surface, this variance would permit VTA to lower the overhead trolley conductors to 15.91 feet at surface streets immediately to the east of the overpass.
3. This resolution authorizes the variance from G.O. 95 Rule 37, Table 1, Case 3-C across surface streets immediately to the east of the SR87 overpass as specified above.

BACKGROUND

The Santa Clara Valley Transportation Authority (VTA) is currently finalizing the design of the Vasona Light Rail Project. This project is a 5.5-mile rail extension program with a projected service date of November, 2004. The design of the Vasona Light Rail Project includes an overhead contact system (OCS) consisting of a full catenary (messenger wire, hangers, and a trolley or contact wire) to supply traction power for the propulsion of light rail vehicles. The system will operate at a nominal voltage of 750 VDC.

It was realized during the design development stage of the OCS that a section of the extension immediately to the east of the SR87 overpass at West San Carlos Street and Woz Way can not be designed in strict compliance with General Order 95 (G.O. 95) due to an unavoidably restricted vertical clearance. As currently in effect, G.O. 95, Rule 37, Table 1, Case 3-C requires a minimum vertical clearance for a trolley contact conductor of 19 feet above the surface of the road. Footnote eee allows this to be reduced to 18 feet for systems operating below 1000 volts.

The existing SR87 overpass, which creates the restricted vertical clearance and under which the proposed trolley wires will run, is a single-span structure that passes over four lanes of moderate automobile traffic. Modifying the existing structure by raising it to

create the required clearance is not feasible given the size of the structure and the requirement to keep it operational during construction. Lowering the pavement and the tracks to create the necessary clearance has likewise been ruled infeasible due to a physical constraint imposed by a culvert underneath the intersection of Woz Way and West San Carlos St. Additional physical constraints are imposed by pavement conformations, drainage considerations, existing trackway elevations, and the nature of the track work proposed.

Therefore, by letter of January 9, 2003, the Santa Clara VTA petitions the Commission to authorize a variance from G.O. 95 permitting VTA to lower the trolley wires to an elevation of 15.91 feet above the tracks and road surface at said location.

NOTICE

Notice of the variance application was made by the Santa Clara VTA in direct written communication to the potentially affected parties. Santa Clara VTA states that a copy of the variance application letter was mailed and distributed to said parties.

PROTEST

No protest of the variance application has been filed with the Commission.

DISCUSSION

The Safety and Reliability Branch (SRB) evaluated this variance request from the vantage point of its impact on public safety. Factors influencing the SRB's evaluation included the presence of safety devices already in place (including the detection for over-current and current rate-of-rise), as well as additional safety enhancements proposed by the Santa Clara VTA in compensation for the increased risk posed by the restricted vertical clearance as follows:

- VTA will install highly visible warning signs with reflective lettering in advance of the SR87 overpass to warn operating motorists of impending restrictions and to choose alternative routes prior to encountering the aforementioned restriction.
- VTA will install a warning beacon on the west approach of West San Carlos as a supplement to the warning sign.
- VTA will install a "warning portal" on the north and south approach of Woz Way to physically determine the height of oncoming vehicles and provide an active warning system.
- VTA will indicate on all warning signs the specific height restriction.
- VTA traction power substations will contain protective devices to interrupt the flow of electricity in the event the trolley wire is dropped to the ground.

California Department of Transportation Vehicle Code, Section 35250, requires that vehicles on public roadways be restricted to a maximum height of 14 feet. At a height of 15.91 feet, there will be a minimum clearance of 1.91 feet between the trolley contact wires and the maximum legal vehicle height. With the additional safety measures proposed, the SRB believes that the additional risk to pedestrians and vehicles posed by granting of this variance is acceptable.

Lastly, California Department of Transportation (Caltrans) Highway Design Manual, Paragraph 309.2, Item C, specifies a minimum 4.6 meter (15.09 feet) vertical clearance over roadways. The 15.91-ft. minimum clearance proposed by VTA will exceed this Caltrans requirement.

COMMENTS

This is an uncontested matter in which the decision grants the requested relief. Therefore, pursuant to Public Utilities Code § 311(g)(2), the otherwise applicable 30-day period for public review and comment is being waived.

FINDINGS

1. The SRB, after reviewing blueprints and engineering materials and visiting the site, determined that lowering the overhead contact wire to 15.91 feet at the east end of the overpass and the area immediately to the east would not significantly impact public safety.
2. The SRB recommends that this variance request be approved, contingent on safety measures proposed by VTA as described earlier.
3. Furthermore, the granting of the variance applies only to this specific request and should not be interpreted as applicable to the entire construction project.

THEREFORE, IT IS ORDERED THAT:

1. Santa Clara Valley Transportation Authority be granted a variance from General Order 95, Rule 37, Table 1, Case 3-C by lowering the overhead trolley conductors to 15.91 feet above the road surface immediately to the east of the SR87 overpass, contingent on adoption of safety measures proposed by VTA as described earlier.
2. This resolution shall be effective immediately.

I hereby certify that this Resolution was adopted by the California Public Utilities Commission at its regular meeting on April 3, 2003. The following Commissioners approved it:

Commissioners

William Ahern
Executive Director

MICHAEL R. PEEVEY
President

CARL W. WOOD
LORETTA M. LYNCH
GEOFFREY F. BROWN
SUSAN P. KENNEDY